

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,321,026 B2  
APPLICATION NO. : 09/892613  
DATED : January 22, 2008  
INVENTOR(S) : Shawn Shui-on Leung

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Please amend SEQ ID NO: 38 and SEQ ID NO: 47 in the Sequence Listing as described below and as they appear in the attached Replacement copy of the Sequence Listing:

In SEQ ID NO: 38, the amino acid in position 5 for the WAS sequence should be a leucine rather than a valine. In SEQ ID NO: 47, the valine at position 5 in the heavy chain should also be a leucine rather than a valine. SEQ ID NO: 2, which appears in the original Sequence Listing submitted with the application on June 27, 2001, has the correct sequence. The errors in the Sequence Listing were typographical in nature, and therefore, correction is respectfully requested.

It is noted that the incorrect Sequence Listing, with only 32 sequences instead of 71, was printed with said Letters Patent. The attached Sequence Listing includes all 71 sequences in addition to the amendment currently requested.

Signed and Sealed this  
Eleventh Day of October, 2011



David J. Kappos  
Director of the United States Patent and Trademark Office



**CERTIFICATE OF CORRECTION (continued)**  
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<210> 4  
<211> 57  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> 5' Primer is a synthetic sense strand oligonucleotide encoding amino acid 1-19 of the VH region (SIQ ID No. 2). The 3' end of the primer overlaps with the 5' end of the template by 18 nucleotides.

```
<220>
<221> primer_bind
<222> (1)..(57)

<400> 4
ggatggatgc tggatggatc tggatggatgc ttagatgcgc cttggatgg
57
```

<210> S  
<211> 48  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> 3' Primer is a synthetic anti-sense strand oligonucleotide encoding amino acid 43-59 of the VII segment (SEQ ID No. 2). The primer overlaps with the template by 21 nucleotides.

```
<220>
<221> primer_bind
<222> (1)..(48)

<400> S
gtggatgttttccatccccccatctactatgttttgtcgatccccccatccagcc 42
```

```
<210> 6
<211> 132
<212> DNA
<213> Artificial Sequence

<220>
<221> 1 terminal is a synthetic sense strand oligonucleotide encoding
      amino acid 68-111 of the VH region (SLD ID No 2). The template is
      PCR-amplified by two primers (SEQ ID No 7 and 8)
```

```

<220>
<221> V region
<222> (1)..(12)

<400> 6
Uccacccctt ccggatggaa tgccaaatgg ttcctgtttcc tgcaatgtttttttagttttgggg
atggggatgg cccgtttata ttatgtgtgtc agatcatatg atcgccgttgtc tagtcacggg
atttttttttt ct

```

<21b> 7  
<21c> 60  
<21d> DNA  
<21e> Artificial Sequence  
  
<22a>  
<22b> 5' Primer is a synthetic sense-strand oligonucleotide encoding amino acid 55-74 of the VH region (SEQ ID No 2). The 3' end of the primer overlaps with the 5' end of the template by 21 nucleotides.

```
<<20>
<<21> 0M_PER_min
<<22> (1)..(68)

<<20> /
gggttttacca ctttccatccc agacacgttg cagggttgtt tcaccatctc caggacat 61
```

<210> 8  
<211> 57  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> 3' Primer is a synthetic anti-sense-strand oligonucleotide encoding amino acid 105-125 of the Vb chain (Seq ID No. 2). The primer and the template overlaps by 21 nucleotides.

<210> 9  
<211> S21  
<212> DNA  
<213> Artificial Sequence

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<220>  
<223> FR-patched light chain variable region sequence formed by joining  
the N- and C-terminal (SEQ 11 and 14) halves at the KpC1 site.

<220>  
<221> V\_region  
<222> (1), (321)

400+ 9	gtatccccc tgccccgtt tttttttttt cttttttttt tttttttttt tttttttttt	16
ultttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	126
ggttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	180
tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	240
tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	300
tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt	321

<210> 10  
<211> 107  
<212> PRT  
<213> Chimera sp.

<400> 10  
Asp Lle Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr  
24 25 26

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile  
35 48 45

Tyr Tyr Thr Ser Ile Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly  
58 59 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro  
65 70 75 80

Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Gly Asn Thr Leu Pro Trp  
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys  
100 105

<210> 11  
<211> 108  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> N-template is a synthetic sense-strand oligonucleotide encoding  
amino acid 11-46 of the VL region (SEQ ID No. 10). The template  
is PCR-amplified by two primers (SEQ ID No. 12 and 13)

<220>  
<221> V\_region  
<222> (1)..(108)

```

<seq> 11
ctgttgtcgt ctgtggaga cagagtccac attatgttgcg ggccaaatcg ggcatttgc 50
aaatatttaa actggatca geagttttccg gtaatgttc cgtaaactc 100

```

<210> 12  
<211> 51  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 5' Primer is a synthetic sense-strand oligonucleotide encoding amino acid 1-17 of the VII region (SEQ ID No 30). The 3' end of the primer overlaps with the 5'end of the template by 21 nucleotides.

```
<220>
<221> pointer_bind
<222> (1)..(51)

<490> 12
```

<211> 4B  
<212> DNA  
<213> Artificial Sequence  
<214>

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<223> 3' Primer is a synthetic anti-sense-strand oligonucleotide encoding amino acid 48-53. The primer and the template overlaps by 18 nucleotides.

<220>  
<221> pointer\_bind  
<222> (1),..(40)

<400> 13  
atataatgtt cttagtagatc aggaggtttcg gacccatttc

4

<210> 14  
<211> 120  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> C-terminal is a synthetic sense strand oligonucleotide encoding amino acid 59-98 of the VH region (SEQ ID No 18). The template is PCR-amplified by tow primers (SEQ ID No 15 and 16).

<220>  
<221> V\_Region  
<222> (1)..(120)

```

<400> 14
ccatcgugt tcgttgccgg tgggtctggc acggatcta ctatcacat tagtcctcg 68
caacccaaagttttaaccat ttatcttttc ccaatccatata atccatcttc atatccattc 128

```

<210> 15  
<211> 49  
<212> DNA  
<213> Anti[filag]l Serine

<220>  
<221> 5' Primer is a synthetic sense strand oligonucleotide encoding amino acid 58-65 of the VH region (SLU ID No. 10). The 3' end of the primer overlaps with the 5' end of the template by 21 nucleotides

<220>  
<221> pr:mer\_bind  
<222> (1),..(19)

<400> 15  
ctatccatgt atatccact caggagtccc atcaaggttc agtggcagt

49

<210> 16  
<211> 48  
<212> DNA  
<213> Artificial Sequence

<223> 3' Primer is a synthetic anti sense strand oligonucleotide  
<223> encoding amino acid 92-187 of the VH region (SEQ ID No 10). The  
primer and the template overlaps by 21 nucleotides.

<220>  
<221> printer bin  
<222> (1) 648

<400> 16  
111111ccccc-ccccccc-ccccccc-ccccccc-ccccccc-

4

<210> 17  
 <211> RNA  
 <212> DNA  
 <213> Artificial Sequence

<220>  
<221> 18 patched heavy chain variable region sequence (Full DNA  
Sequence) formed by joining the N- and C-terminal (Sbjt 19 and  
22) halves at the Kpet site.

<220>  
<221> V region  
<222> (1) (421)

<210> 18  
<211> 123

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```

<Z12> PRT
<Z13> Chimaera sp.

<R90> 16

Gln Val Gln Lys Val Ala Ser Gly Ala Glu Val Asn Lys Pro Gly Ala
          1           5           10          15

```

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
29 25 30

Asn Met His Trp Val Arg Gln Pro Pro Gly Arg Gly Leu Glu Trp Ile  
35 46 45

Gly Ala Ile Tyr Pro Gly Asn Gly Asp Thr Ser Tyr Asn Glu Lys Phe  
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr  
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Lys  
65 96 95

Ala Arg Ser Ile Lys Tyr Gly Ser Asn Tyr Val Asp Tyr Phe Asp Tyr Trp  
180 185 190

Gly Glu Gly Thr Thr Val Thr Val Ser Ser Asp  
115 120

```
<210> 19  
<211> 114  
<212> DNA  
<213> Artificial Sequence
```

mino acid 12-49 of the VH region (SEQ ID No. 18). The template is PCR-amplified by two primers (SEQ ID No. 20 and 21).

<210> 20  
<211> 57  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> 5' Primer is a synthetic sense-strand oligonucleotide encoding amino acid 1-19 of the VII region (SEQ ID No 18). The 3' end of the primer overlaps with the 5'end of the template by 24 nucleotides.

<210> ZT  
<211> 55  
<212> UNA  
<213> Artificial Sequence  
  
<220>  
<221> 3' Primer is a synthetic anti sense strand oligonucleotide  
encoding amino acid 43-60 of the VH region (SEQ ID No 18). The

```
<220>
<221> primer_bind
<222> (1)..(55)
```

5' tggatccatgtt ctcaccattt ctctggataaa tagtcgtttat ccattttcagg cccct

<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> C-terminal is a synthetic sense strand oligonucleotide encoding

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Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu  
65 70 75 80

Asp Phe Ala Thr Tyr Phe Cys His Gln Trp Ser Ser Asn Pro Leu Thr  
85 90 95

Phe Gly Ala Gly Thr Lys Leu Thr Val Leu Arg  
108 105

<210> 27  
<211> 129  
<212> DNA  
<213> Artificial Sequence

<228>  
<229> N template is a synthetic sense-strand oligonucleotide encoding  
amino acid 9-51 of the VL region (SLQ 1D No. 26). The template  
is PCR amplified by two primers (SLQ 1D No. 28 and 29).

<210> 28  
<211> 45  
<212> DNA

<220>  
<223> 5' Primer is a synthetic sense strand oligonucleotide encoding  
amino acid 1-15 of the VH region (SEQ ID No 28). The 3' end of  
the primer overlaps with the 5' end of the template by 21  
nucleotides.

```
<220>
<221> primer bind
<222> (1)..(45)

<400> 28
gtatctcaac tccatccatgc cccatcgat cttttttgtat cttgt
45
```

```
<210> 29  
<211> 40  
<212> DNA  
<213> Artificial Sequence
```

<220s>  
<223s> 3' Primer is a synthetic anti-sense strand oligonucleotide  
encoding amino acid 45-57. The primer and the template overlaps  
by 21 nucleotides.

```
<22> primer_bind  
<22> (1)..(48)  
  
<400> 29
```

*<210>* 30

<226> Artificial Sequence  
<227>  
<228> 5'-terminal) is a synthetic sense-strand oligonucleotide encoding  
amino acid 61-199 of the VII region (STU 10 Nu 2b) the template  
of D2B synthesized by the authors (see 1510, 1520, 1530).

<220>  
<221> V\_region  
<222> (1)..(120)

<210> 31  
<211> 43

<223> Artificial Sequence  
<223> S' Primer is a synthetic sense strand oligonucleotide encoding amino acid 54-67 of the VII region (SEQ ID No 18). The 3' end of the primer overlaps with the 5' end of the template by 21

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<213> Immunoglobulin

<400> 35

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly  
1 5 10 15

Ser Leu Lys Leu Ser Iys Ala Ala Ser Gly Phe Ala Phe Ser Ile Tyr  
20 25 30

Asp Met Ser Thr Val Arg Gln Thr Phe Glu Lys Arg Leu Glu Trp Val  
35 40 45

Ala Tyr Ile Ser Ser Gly Gly Ily Thr Thr Tyr Tyr Pro Asp Thr Val  
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr  
65 70 75 80

Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met Tyr Tyr Cys  
85 90 95

Ala Arg His Ser Gly Tyr Gly Ser Ser Tyr Gly Val Leu Phe Ala Tyr  
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala  
115 120

<210> 36

<211> 29

<212> PKT

<213> Immunoglobulin

<400> 36

Glu Val Gln Leu Val Glu Ser Gly Gly Leu Val Pro Gly Gly Ser  
1 5 10 15

Leu Arg Leu Ser Cys Ala Thr Thr Gly Phe Ala Phe Ser  
20 25

<210> 37

<211> 30

<212> PKT

<213> Immunoglobulin

<400> 37

Gln Val Gln Leu Val Glu Ser Gly Gly Val Val Gln Pro Gly Arg  
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser  
20 25 30

<210> 38

<211> 38

<212> PKT

<213> Immunoglobulin

<400> 38

Glu Val Gln Leu Leu Glu Ser Gly Gly Leu Val Gln Pro Gly Gly  
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser  
20 25 30

<210> 39

<211> 14

<212> PKT

<213> Immunoglobulin

<400> 39

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala  
1 5 10

<210> 40

<211> 32

<212> PKT

<213> Immunoglobulin

<400> 40

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Ile Gln  
1 5 10 15

Met Asn Ser Leu Arg Val Glu Asp Thr Ala Leu Tyr Tyr Cys Ala Arg  
20 25 30

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<210> 41  
<211> 11  
<212> PRT  
<213> Immunoglobulin

<400> 41

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Thr  
1 5 10

<210> 42  
<211> 107  
<212> PRT  
<213> Immunoglobulin

<400> 42

Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu Gly  
1 5 10 15

Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr  
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly The Val Lys Leu Leu Ile  
35 40 45

Tyr Tyr Thr Ser Ile Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly  
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser Asn Leu Glu Gln  
65 70 75 80

Glu Asp Phe Ala Thr Tyr Phe Lys Gln Gln Gly Asn Thr Leu Pro Trp  
85 90 95

The Phe Gly Gly The Lys Leu Glu Ile Lys  
100 105

<210> 43  
<211> 23  
<212> PRT  
<213> Immunoglobulin

<400> 43

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly  
1 5 10 15

Asp Arg Val Thr Ile Ser Lys  
20

<210> 44  
<211> 15  
<212> PRT  
<213> Immunoglobulin

<400> 44

Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr  
1 5 10 15

<210> 45  
<211> 42  
<212> PRT  
<213> Immunoglobulin

<400> 45

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly The Glu Phe Thr  
1 5 10 15

Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Phe Lys  
20 25 30

<210> 46  
<211> 16  
<212> PRT  
<213> Immunoglobulin

<400> 46

Phe Gly Gly Gly The Lys Val Glu Ile Lys  
1 5 10

<210> 47  
<211> 123  
<212> PRT  
<213> Immunoglobulin

<400> 47

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Glu Val Gin Leu Leu Glu Ser Gly Gly Gly Leu Val Gin Pro Gly Gly  
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ile Tyr  
20 25 30

Asp Met Ser Trp Val Arg Gin Ala Pro Gly Lys Gly Leu Glu Trp Val  
35 40 45

Ala Tyr Ile Ser Ser Gly Gly Gly Thr Thr Tyr Tyr Pro Asp Thr Val  
50 55 60

Lys Ily Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr  
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Leu Tyr Tyr Cys  
85 90 95

Ala Arg His Ser Gly Tyr Gly Ser Ser Tyr Gly Val Leu Phe Ala Tyr  
100 105 110

Trp Gly Gin Gly Thr Leu Val Thr Val Ser Ser  
115 120

<210> 48  
<211> 107  
<212> PRT  
<213> Immunoglobulin

<400> 48  
Asp Ile Gin Met Thr Gin Ser Pro Ser Ser Leu Ser Ala Ser Val Gly  
1 5 10 15

Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr  
20 25 30

Leu Asn Trp Tyr Gin Gin Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile  
35 40 45

Tyr Tyr Thr Ser Ile Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly  
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro  
65 70 75 80

Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Gly Asn Thr Leu Pro Trp  
85 90 95

Thr Phe Gly Gly Thr Lys Val Glu Ile Lys  
100 105

<210> 49  
<211> 123  
<212> PRT  
<213> Immunoglobulin

<400> 49  
Gin Val Gin Leu Arg Gin Pro Gly Ala Glu Leu Val Lys Pro Gly Ala  
1 5 10 15

Ser Val Lys Met Ser Lys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Asn Met His Trp Val Lys Cys Thr Pro Gly Gin Cys Leu Glu Trp Ile  
35 40 45

Gly Ala Ile Tyr Pro Gly Asn Gly Asp Thr Ser Tyr Asn Gln Lys Phe  
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr  
65 70 75 80

Met Gin Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Ser Ile Tyr Gly Ser Asn Tyr Val Asp Tyr Phe Asp Tyr Trp  
100 105 110

Gly Gin Gly Thr Thr Leu Thr Val Ser Ser Asp  
115 120

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<210> 5H  
<211> 107  
<212> PRT  
<213> Immunoglobulin

<400> 5H

Gln Ile Val Leu Ser Gln Ser Pro Ala Ile Leu Ser Ala Ser Pro Gly  
1 5 10 15

Glu Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Leu Ser Phe Met  
20 25 30

His Trp Tyr Gln Glu Lys Pro Gly Ser Ser Pro Lys Pro Trp Ile Tyr  
35 40 45

Ala Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser  
50 55 60

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Arg Val Glu Ala Glu  
65 70 75 80

Asp Ala Ala Thr Tyr Phe Cys His Gln Trp Ser Ser Asn Pro Leu Thr  
85 90 95

Phe Gly Ala GLY Thr Lys Leu Glu Leu Lys Arg  
100 105

<210> 5I  
<211> 123  
<212> PRT  
<213> Immunoglobulin

<400> 5I

Gln Val Gln Leu Arg Gln Pro Gly Ala Glu Leu Val Lys Pro Gly Ala  
1 5 10 15

Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Asn Met His Trp Val Lys Gln Thr Pro Gly Gln Gly Leu Glu Trp Ile  
35 40 45

Gly Ala Ile Tyr Pro Gly Asn Gly Asp Thr Ser Tyr Asn Gln Lys Phe  
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr  
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Gln Asp Ser Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Ser His Tyr Gly Ser Asn Tyr Val Asp Tyr Phe Asp Tyr Trp  
100 105 110

Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Asp  
115 120

<210> 5Z  
<211> 39  
<212> PRT  
<213> Immunoglobulin

<400> 5Z

Gln Val Gln Leu Val Ala Ser Gln Ala Glu Val Asn Lys Pro Gly Ala  
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr  
20 25 30

<210> 5A  
<211> 14  
<212> PRT  
<213> Immunoglobulin

<400> 5A

Trp Val Arg Gln Pro Pro Gly Arg Gly Leu Glu Trp Ile Gly  
1 5 10

<210> 5A  
<211> 32  
<212> PRT  
<213> Immunoglobulin

<400> 5A

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Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr Met Gln  
1 5 10 15

Leu Ser Ser Ile Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg  
20 25 30

<210> 55  
<211> 42  
<212> PRT  
<213> Immunoglobulin

<400> 55

Arg Ala Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu Asn  
1 5 10 15

Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Cys Cys Ala Arg  
20 25 30

<210> 56  
<211> 11  
<212> PRT  
<213> Immunoglobulin

<400> 56

Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser  
1 5 10

<210> 57  
<211> 107  
<212> PRT  
<213> Immunoglobulin

<400> 57

Gln Ile Val Leu Ser Gln Ser Pro Ala Ile Leu Ser Ala Ser Pro Gly  
1 5 10 15

Glu Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Leu Ser Phe Met  
20 25 30

His Trp Tyr Gln Gln Lys Pro Gly Ser Ser Pro Lys Pro Trp Ile Tyr  
35 40 45

Ala Thr Ser Asn Ile Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser  
50 55 60

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Arg Val Glu Ala Gln  
65 70 75 80

Asp Ala Ala Thr Tyr Phe Cys His Gln Trp Ser Ser Asn Pro Leu Thr  
85 90 95

Phe Gly Ala Gly Thr Lys Leu Gln Leu Lys Arg  
100 105

<210> 58  
<211> 21  
<212> PRT  
<213> Immunoglobulin

<400> 58

Asp Ile Gln Leu Thr Gln Ser Ser Ser Ser Leu Ser Ala Ser Val Gly  
1 5 10 15

Asp Arg Val Thr Ile Thr Cys  
20

<210> 59  
<211> 22  
<212> PRT  
<213> Immunoglobulin

<400> 59

Asn Leu Met Leu Ile Gln Pro Pro Ser Val Ser Glu Ser Pro Gly Lys  
1 5 10 15

The Val Thr Met Thr Cys  
20

<210> 60  
<211> 15  
<212> PRT  
<213> Immunoglobulin

<400> 60

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Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Pro Val Ile Tyr  
1 S 10 15

<210> 61  
<211> 32  
<212> PRT  
<213> Immunoglobulin

<400> 61

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr  
1 S 10 15

Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Phe Cys  
20 25 30

<210> 62  
<211> 32  
<212> PRT  
<213> Immunoglobulin

<400> 62

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr  
1 S 10 15

Leu Thr Ile Thr Ser Ser Leu Gln Pro Glu Asp Phe Ala Ala Tyr Phe Cys  
20 25 30

<210> 63  
<211> 32  
<212> PRT  
<213> Immunoglobulin

<400> 63

Gly Val Pro Ser Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Phe  
1 S 10 15

Leu Thr Ile Ser Ser Leu Arg Pro Glu Asp Val Ala Thr Tyr Phe Cys  
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<400> 64

Gly Val Pro Ala Arg Phe Ser Gly Tyr Asn Ser Gly Asn Ser Ala Phe  
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Leu Thr Ile Asn Arg Val Glu Ala Gly Asp Glu Ala Asp Tyr Phe Cys  
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Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg  
1 S 10

<210> 66  
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Phe Gly Val Gly Ser Lys Val Glu Ser Lys Arg  
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<210> 67  
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<400> 67

Phe Gly Ala Gly Thr Lys Leu Thr Val Leu Arg  
1 S 10

<210> 68  
<211> 122  
<212> PRT  
<213> Immunoglobulin

<400> 68

Gln Val Gln Leu Val Ala Ser Gly Ala Gln Val Asn Lys Pro Gly Ala

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1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Asn Met His Trp Val Arg Gln Pro Pro Gly Arg Gly Leu Glu Trp Ile  
35 40 45

Gly Ala Ile Tyr Pro Gly Asn Gly Asp Thr Ser Tyr Asn Gln Lys Phe  
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr  
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Ser His Tyr Gly Ser Asn Tyr Val Asp Tyr Phe Asp Tyr Trp  
100 105 110

Gly Gln Gly Thr Thr Val Thr Val Ser Ser  
115 120 125

<210> 69  
<211> 187  
<212> PROT  
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<400> 69

Asp Ile Gln Leu Thr Ile Ser Pro Ser Ser Leu Ser Ala Ser Val Gly  
1 5 10 15

Asp Arg Val Thr Ile Thr Lys Arg Ala Ser Ser Ser Leu Ser Phe Met  
20 25 30

His Trp Tyr Gln Gln Lys Pro Gly Ser Ser Pro Pro Trp Ile Tyr  
35 40 45

Ala Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser  
50 55 60

Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu  
65 70 75 80

Asp Phe Ala Thr Tyr Phe Cys His Gln Trp Ser Ser Asn Pro Leu Thr  
85 90 95

Phe Gly Ala Gly Thr Lys Leu Thr Val Leu Arg  
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<210> 70  
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<400> 70

Gln Val Gln Leu Val Ala Ser Gly Ala Glu Val Asn Lys Pro Ile Ala  
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Asn Met His Trp Val Arg Gln Pro Pro Gly Arg Gly Leu Glu Trp Ile  
35 40 45

Gly Ala Ile Tyr Pro Gly Asn Gly Asp Thr Ser Tyr Asn Gln Lys Phe  
50 55 60

Lys Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Ser His Tyr Gly Ser Asn Tyr Val Asp Tyr Phe Asp Tyr Trp  
100 105 110

Gly Gln Gly Thr Thr Val Thr Val Ser Ser  
115 120

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<211> 107

<212> PRT

<213> Immunoglobulin

<400> 71

Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly  
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Asp Arg Val Thr Ile Thr Lys Arg Ala Ser Ser Ser Leu Ser Phe Met  
20 25 30

His Thr Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Pro Val Ile Tyr  
35 40 45

Ala Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser  
50 55 60

Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu  
65 70 75 80

Asp Phe Ala Thr Tyr Phe Cys His Gln Trp Ser Ser Asn Pro Leu Thr  
85 90 95

Phe Gly Ala Gly Thr Lys Leu Thr Val Leu Arg  
100 105